

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A fuel cell stack ~~for use in a vehicle, said fuel cell stack formed by stacking comprising~~ a plurality of unit cells stacked in a stacking direction, wherein

each unit cell includes a first separator, a second separator, and an electrolyte electrode assembly that is sandwiched between the first and second separators,

the electrolyte electrode assembly includes a pair of electrodes and an electrolyte interposed between said electrodes,

wherein said electrodes have a substantially square shape having a side length in a range of 140 mm to 200 mm, and said first and second separators have a substantially square shape having a side length in a range of 200 mm to 300 mm, and

at least one of said first separator and said second separator has:

a reactant gas supply passage formed in a first side portion,

a reactant gas discharge passage formed in a second side portion opposite the first side portion,

a reactant gas flow passage formed on a first surface facing said electrodes, the reactant gas flow being formed along a substantial portion of the first surface in a direction from the first side portion to the second side portion,

a coolant supply passage formed in a third side portion,

a coolant discharge passage formed in a fourth side portion opposite the third side portion, and

a coolant flow passage formed on a second surface opposite the first surface, the coolant flow passage being formed along a substantial portion of the second surface in a direction from the third side portion to the forth side portion and connected to the coolant supply passage and the coolant discharge passage

said second separator has a reactant gas flow passage on a first surface facing said electrodes and a second surface opposite the first surface, and a coolant flow passage is formed

~~along a substantial portion of said second surface of said first separator and said second surface of said second separator such that a coolant flows along the substantial portion of said second surface of said first separator and said second surface of said second separator while a direction in which said reactant gas flows crosses a direction in which said coolant flows.~~

2. (Currently Amended) A fuel cell stack according to claim 1, wherein ~~a~~said reactant gas supply passage and ~~a~~said reactant gas discharge passage extend through two parallel side portions of said first and second separators in said stacking direction, and ~~a~~said coolant supply passage and ~~a~~said coolant discharge passage extend through other two parallel side portions of said first and second separators in said stacking direction, wherein the coolant supply passage is in fluid communication with the coolant discharge passage through the coolant flow passage.

3. (Previously Presented) A fuel cell stack according to claim 2, wherein centers of said electrodes are substantially in alignment with centers of said first and second separators.

4. (Previously Presented) A fuel cell stack according to claim 3, wherein said reactant gas supply passage and said reactant gas discharge passage are formed symmetrically on a surface of said first and second separators.

5. (Currently Amended) A fuel cell stack according to claim 2, wherein a straight reactant gas flow passage connecting said reactant gas supply passage and said reactant gas discharge passage is formed on ~~a~~the first surface of said first and second separators for supplying a reactant gas to said electrodes.

6. (Withdrawn) A method of assembling fuel cell stack for use in a vehicle, said fuel cell stack formed by stacking a plurality of electrolyte electrode assemblies and separators alternately in a stacking direction, each of said electrolyte electrode assemblies including a pair

of electrodes and a electrolyte interposed between said electrodes, said method comprising the step of:

selectively forming a first assembly, a second assembly, a third assembly, and a fourth assembly depending on conditions for installing said fuel cell stack in said vehicle, wherein

said first assembly is formed by juxtaposing two fuel cell stacks adjacent to each other such that said stacking direction is oriented substantially vertically;

said second assembly is formed by arranging four fuel cell stacks in a square shape in a plan view such that said stacking direction is oriented substantially vertically;

said third assembly is formed by juxtaposing two fuel cell stacks adjacent to each other such that said stacking direction is oriented substantially horizontally; and

said fourth assembly is formed by arranging four fuel cell stacks in a square shape in a front view such that said stacking direction is oriented substantially horizontally.

7. (Withdrawn) A method of assembling a fuel cell stack according to claim 6, wherein said electrodes have a substantially square shape having a side length in a range of 140 mm to 200 mm, and said separators have a substantially square shape having a side length in a range of 200 mm to 300 mm.